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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/611,304	FISCHER ET AL.	
	Examiner	Art Unit	
	Mon Cheri S. Davenport	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-29** rejected under 35 U.S.C. 103(a) as being unpatentable over Raleigh et al. (US patent Number 6,463, 096) in view of Matsuoka et al. (US Patent Application Publication 2002/0009082).

Regarding **Claims 1 and 21** Raleigh et al. discloses a method comprising:

storing a description of a first frame wherein said description comprises ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP, the MAP instructions are forwarded to a radio link supervisor processor, which reads on storing a description(instructions), the processor has a copy of the instruction to process, frequencies data rates, and frame times);***

(1) a frame length ***(some of the extracted data includes the MA, see column 6, line 14)***; and

(2) a first transmission rate(data rates) ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.);***

receiving a first portion (see figure 4a, CPE) of said first frame(see figure 4a, Frame A, B, C, D or E) wherein the length of said first portion is less than said frame length and is based on said first transmission rate(2Mbps)*(see column 6, lines 42-44, a frame is here is understood to be a unit of time for which access to the common transmission medium may be assigned to one or more CPEs, see fig. 4a, Frame a is divided into 15 parts each part is less than the total frame length, frame A makes up the sum of all 15 portions,);*

queuing said first portion of said first frame*(see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues them, see also col. 6, lines 63-32, each 15 CPE are scheduled to transmit which reads on queued first then scheduled);*

transmitting said first portion (see figure 4a, CPE) of said first frame at said first transmission rate into a shared-communications channel (*see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2Mbps, common transmission channel reads on shared communication channel)*; and

receiving a second portion (see figure 4a, section CPE X(X represents any one of 1-32))of said first frame after said transmission of said first portion has started *(see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit).*

However Raleigh et al. fails to specifically state queuing said first portion of said first frame as claimed.

Matsuoka et al. teaches queuing said first portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claims 2 and 22** Raleigh et al. discloses everything claimed as applied above (see claims 1 and 21).

wherein said description further comprises a second transmission rate ***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)*** and at least one form of modulation ***(see column 6, lines 46-48, any known MAC scheme may be used to control access to the medium in this frame such as CSMA, CSMA/CD etc. When RA frame includes an OFDM burst).***

Regarding **claim 3** Raleigh et al. discloses everything claimed as applied above (see claim 2). In addition the method includes:

wherein said at least one form of modulation comprises orthogonal frequency division multiplexing***(see column 6, lines 46-48, any known MAC scheme may be used to control***

access to the medium in this frame such as CSMA, CSMA/CD etc. When RA frame includes an OFDM burst).

Regarding **claims 4 and 23** Raleigh et al. discloses everything claimed as applied above (see claims 1 and 21).

further comprising queuing said second portion of said first frame wherein the length of said second portion is less than said frame length, and is based on said first transmission rate and the time required to receive said second portion ***(see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues them, see also column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)***

However Raleigh et al fails to specifically point out queuing frame portions as claimed.

Matsouka et al. teaches queuing (storing) frame portions (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claim 5** Raleigh et al. an apparatus comprising(see figure 3):

an interface controller(see figure 3, section 318, MAC processor) for:

(1) receiving a first portion (see figure 4a, section 402, RA frame) of a first frame (see figure 4a, Frame A, B, C, D or E) ***see figure 3, section 318, MAC processor, see col. 6, line 9-16, some of the data is extracted including the MAP))*** ; and

(2) receiving a second portion (see figure 4a, section CPE X(X represents any one of 1-32))) of a first frame ***(see figure 3, section 324, transmit priority processor, see col. 6, lines 28-29, processor receives packets from the IP router that are to be directed to the hub, see also column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit) ;***

a memory for(see figure 3. section 320, radio link supervisor processor, which reads on memory for storing description, see col. 6, lines 13-19):

(1) storing a description of said first frame wherein said description comprises a frame length and a first transmission rate***(see figure 3, section 320, Radio Link Supervisor, see column 6, lines 12-119, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times, instruction are forwarded to radio link supervisor.)***; and

(2) queuing said first portion(see col. 6, lines 63-64, A frame, 15 parts are scheduled to transmit, which reads on CPEs are queued) of said first frame wherein the size of said queue is based on said first transmission rate and the time required to receive said first portion ***(see figure***

4a, see col. 6, lines 31-38, transmit priority processor indicates when data is to be transmitted and the amount of data to be transmitted to a queue monitor, in response the queue monitor generates access request, depicts a MAP frame with data rate and center frequency assignments); and

However Raleigh et al. fails to specifically point out queuing said first portion of said first frame as claimed.

Matsuoka et al. teaches queuing said first portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

a transmitter for transmitting said first portion of said first frame at said first transmission rate into a shared-communications channel ***(see figure 3, section 314, radio converter).***

Regarding **claim 6** Raleigh et al. discloses everything claimed as applied above (see claim 5). In addition the apparatus includes:

wherein said description further comprises a second transmission rate***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)*** and

at least one form of modulation***(see col. 6, line 46-48, any known MAC scheme may be used such as CSMA, OFDM(modulation))***

Regarding **claim 7** Raleigh et al. discloses everything claimed as applied above (see claim 6). In addition the apparatus includes:

wherein said at least one form of modulation comprises orthogonal frequency division multiplexing ***(see col 6, line 46-48, any known MAC scheme may be used such as CSMA, When RA frame includes OFDM)*** .

Regarding **claim 8** Raleigh et al. discloses everything claimed as applied above (see claim 5). In addition the apparatus includes:

wherein said memory is also for queuing said second portion of said first frame wherein the length of said second portion is less than said frame length, and is based on said first transmission rate and the time required to receive said second portion (see col. 6, lines 63-64, A frame, 15 parts are scheduled to transmit, which reads on CPEs are queued, queuing reads on memory)

However Raleigh et al. fails to specifically state queuing said second portion of said first frame as claimed.

Matsuoka et al. teaches queuing said second portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claim 9** Raleigh et al. discloses everything claimed as applied above (see claim 5). In addition the apparatus includes:

wherein said transmitter operates in accordance with the IEEE 802.11 air interface protocol ***(see col 2, lines 63-65, the system and method is applicable to both wired and wireless transmission media).***

Regarding **Claim 10** Raleigh et al. discloses a method comprising:

storing a first description wherein said first description comprises ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP, the MAP instructions are forwarded to a radio link supervisor processor, which reads on storing a description(instructions), the processor has a copy of the instruction to process, frequencies data rates, and frame times))*** :

1) a first frame length ***(some of the extracted data includes the MA, see column 6, line 14)***; and

(2) a first transmission rate ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.);***

transmitting a queued portion of a first frame at said first transmission rate into a shared-communications channel (***see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in a A frame 15 CPEs are scheduled to transmit each 2Mbps, see also col. 6, lines 63-32, each 15 CPE are scheduled to transmit which reads on queued first then scheduled))***;

removing (transmitting) said queued portion of said first frame wherein said removal is based on said first frame length(***see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in a A frame 15 CPEs are scheduled to transmit each 2Mbps)***;

storing a second description wherein said second description comprises ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP):***

(1) a second frame length***(some of the extracted data includes the MA, see column 6, line 14)***; and

(2) a second transmission rate (data rates***) (see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.) (see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate);***

queuing a first portion of a second frame wherein the length of said first portion is less than said second frame length and is based on said first transmission rate ***see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues***

them, see fig. 4a, Frame a is divided into 15 parts each part is less than the total frame length, frame A makes up the sum of all 15 portions, see also frame B and D)); and

transmitting said first portion of said second frame at said second transmission rate into said shared-communications channel(***see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in a A frame 15 CPEs are scheduled to transmit each 2Mbps)***

However Raleigh et al. fails to specifically state queuing said second portion of said first frame as claimed.

Matsuoka et al. teaches queuing said first portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claim 11** Raleigh et al. discloses everything claimed as applied above (see claim 10). In addition the method includes:

wherein said first transmission rate and said second transmission rate are different ***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)***.

Regarding **claim 12** Raleigh et al. discloses everything claimed as applied above (see claim 10). In addition the method includes:

further comprising queuing a second portion of said second frame wherein the length of said second portion is less than said second frame length and is based on said second transmission rate ***(see column 7, lines 4-7, in a E frame a single CPE9 occupies the entire upstream spectrum. Thus may CPEs may simultaneously transmit as low data rate source or one CPE may transmit at a high data rate, see also column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)).***

Regarding **claim 13** Raleigh et al. discloses an apparatus comprising (see figure 3):

a memory(see figure 3. section 320, radio link supervisor processor, which reads on memory for storing description, see col. 6, lines 13-19, for:

(1) storing a first description wherein said first description comprises a first frame length and a first transmission rate ***see column 6, lines 12-16, data extracted from the received MAC packets included MAP, the MAP instructions are forwarded to a radio link supervisor processor, which reads on storing a description (instructions), the processor has a copy of the instruction to process, frequencies data rates, and frame times).)***;

(2) storing a second description wherein said second description comprises a second frame length and a second transmission rate***(see figure 3, section 318, MAC processor, see column 6, lines 12-16, data extracted from the received MAC packets included MAP which***

carries instructions assigning transmission center frequencies, data rates and frame times.); and

(3) queuing a first portion of a second frame wherein the length of said first portion is less than said second frame length and is based on said first transmission rate *(see figure 4a, see col 6, lines 36-38, depicts a MAP frame with data rate and center frequency assignments, , see fig. 4a, Frame a is divided into 15 parts each part is less than the total frame length, frame A makes up the sum of all 15 portions, see also frame B and D));*

a transmitter for *(see figure 3, section 314, radio converter)*:

(1) transmitting a queued portion of a first frame at said first transmission rate into a shared-communications channel(*see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2Mbps, see also column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)*; and

(2) transmitting said first portion of said second frame at said second transmission rate into said shared-communications channel*(see column 7, lines 4-7, in a E frame a single CPE9 occupies the entire upstream spectrum. Thus may CPEs may simultaneously transmit as low data rate source or one CPE may transmit at a high data rate, see also column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)*; and

a processor for removing (transmitting) said first description and said queued portion of said first frame wherein said removal is based on said first frame length (***see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in a A frame 15 CPEs are scheduled to transmit each 2Mbps)***

However Raleigh et al. fails to specifically state queuing said first portion of said first frame as claimed.

Matsuoka et al. teaches queuing said first portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because, Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4).

Regarding **claim 14** Raleigh et al. discloses everything claimed as applied above (see claim 13). In addition the apparatus includes:

wherein said first transmission rate and said second transmission rate are different ***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)***.

Regarding **claim 15** Raleigh et al. discloses everything claimed as applied above (see claim 13). In addition the apparatus includes:

wherein said memory is also for queuing a second portion of said second frame wherein the length of said second portion is less than said second frame length ***(see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues them, see also column 6, line 63-67, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)*** and is based on said second transmission rate ***(see column 7, lines 4-7, in a E frame a single CPE9 occupies the entire upstream spectrum. Thus may CPEs may simultaneously transmit as low data rate source or one CPE may transmit at a high data rate)***

However Raleigh et al. fails to specifically state queuing said second portion of said second frame as claimed.

Matsuoka et al. teaches queuing said first portion of said first frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claims 16 and 29** Raleigh et al. discloses everything claimed as applied above (see claims 13 and 21). In addition the apparatus includes:

wherein said transmitter operates in accordance with the IEEE 802.11 air interface protocol ***(see col 2, lines 63-65, the system and method is applicable to both wired and wireless transmission media).***

Regarding **claims 17 and 25-27** Raleigh et al. discloses a method comprising:

storing a first description of a first frame wherein said first description comprises ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP, the MAP instructions are forwarded to a radio link supervisor processor, which reads on storing a description(instructions), the processor has a copy of the instruction to process, frequencies data rates, and frame times):***

(1) a first frame length***(some of the extracted data includes the MA, see column 6, line 14);***

(2) a first transmission rate(data rates) ***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.);*** and

(3) a first class of service with which said first frame is associated***(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times, transmission center frequencies, data rates and frame times, reads on first class of service .);***

. queuing a first portion of said first frame in a first queue (***see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues them see also col. 6, lines 63-32, each 15 CPE are scheduled to transmit which reads on queued first then scheduled))*** wherein said first portion of said first frame comprises m octets, wherein m is a positive integer, and wherein the value of m is based on said first transmission rate ***(see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, see column 6, lines 12-16, data extracted from the received MAC packets which are in the form of IP packets, made up of bytes, which reads on m octets, see also col. 2, lines 12-13, frame time to transmit 64-bytes voice packet or 1000 byte data packet)***;

transmitting said first portion(see figure 4a, CPE) of said first frame at said first transmission rate into a shared-communications channel***(see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, see figure 4a)***;

receiving a second portion of said first frame after said transmission of said first portion has started***(see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, In frame B, CPEs 2 then 5 then 6 then 7... are scheduled to transmit)***;

storing a second description of a second frame after said storing of said first description wherein said second description comprises*(see column 6, lines 12-16, data extracted from the received MAC packets included MAP):*

(1) a second frame length *(some of the extracted data includes the MA, see column 6, line 14);*

(2) a second transmission rate (data rates) *(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.) (see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate) ;* and

(3) said second class of service with which said second frame is associated*(see column 6, lines 12-16, data extracted from the received MAC packets included MAP which carries instructions assigning transmission center frequencies, data rates and frame times.);*

queuing a portion of said second frame*(see column 6, lines 28-30, processor receives packets from the IP router that are to directed to the hub and queues them)* wherein said portion of said second frame comprises n octets, wherein n is a positive integer, and wherein the value of n is based on said second transmission rate*(see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps)*; and

transmitting said portion of said second frame at said second transmission rate*(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)* into said shared-communications channel*(see column 6, lines 44-46, a request access (*

RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2 Mbps, see figure 4a)

However Raleigh et al. fails to specifically state queuing a portion of the frame as claimed.

Matsuoka et al. teaches queuing a portion of the frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claims 18 and 28** Raleigh et al. discloses everything claimed as applied above (see claims 17 and 25).

wherein said first transmission rate and said second transmission rate are different ***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)***.

Regarding **claim 19** Raleigh et al. discloses everything claimed as applied above (see claim 17). In addition the method includes:

further comprising queuing a second portion of said second frame wherein the length of said second portion is less than said second frame length and is based on said second transmission rate ***(see col 6, lines 58-60, CPE may transmit upstream at a given frame at either a 2Mbps, a 30Mbps data rate)***

However Raleigh et al. fails to specifically state queuing said second portion of said second frame as claimed.

Matsuoka et al. teachès queuing said second portion of said second frame (see [0015], lines 1-6, buffer unit for fragmenting variable-length packets into fixed length packets, storing (queuing) the fixed-length packets (portions of variable-length packets)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Raleigh et al. invention with Matsouka et al. invention because Matsouka et al. invention is a buffer unit and switching apparatus avoids frame interleaving and minimize the required amount of hardware(see [0014], lines 1-4)

Regarding **claim 20** Raleigh et al. discloses everything claimed as applied above (see claim 17). In addition the method includes:

wherein said transmitting is performed in accordance with the IEEE 802.11 air interface protocol ***(see col 2, lines 63-65, the system and method is applicable to both wired and wireless transmission media).***

Regarding **claim 24** Raleigh et al. discloses everything claimed as applied above (see claim 21).

transmitting said second portion (see figure 4a, section CPE X(X represents any one of 1-32))of said first frame at said first transmission rate into a shared-communications channel (***see column 6, lines 44-46, a request access (RA) frame is where individual CPEs may request to the common transmission medium, see column 6, line 63-64, in an A frame 15 CPEs are scheduled to transmit each 2Mbps, common transmission channel reads on shared communication channel).***

Response to Arguments

3. Applicant's arguments see pages 10-36, lines 3, filed January 17, 2008, with respect to the rejection(s) of claim(s) 1-20 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of different interpretation of previously applied reference and *newly applied reference Matsouka et al. 103(a).*

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
January 31, 2008

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